



# Preliminary Information

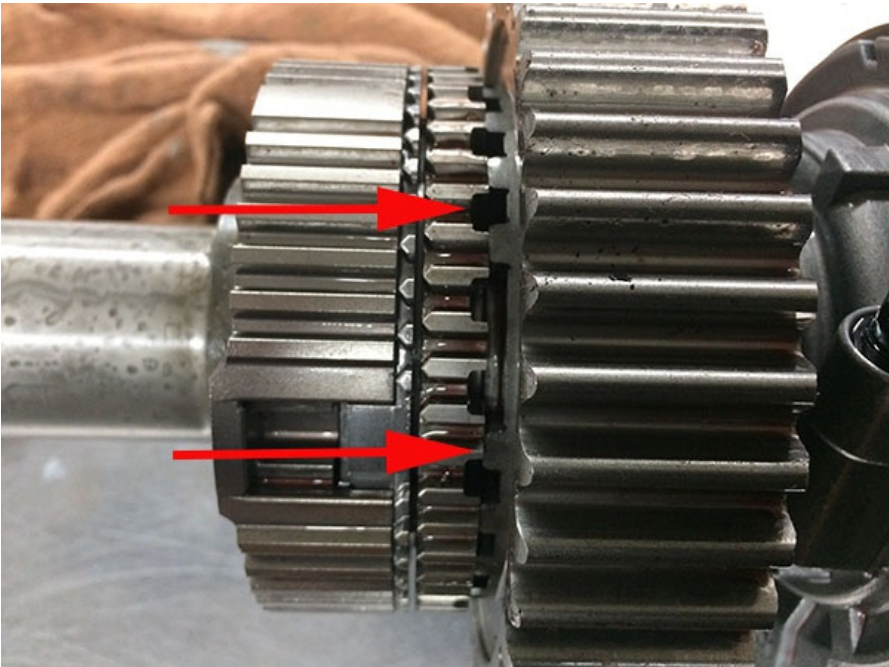
PIP5474 Diagnostic tip for 4 Wheel Drive Inoperative with no DTCs.

Models

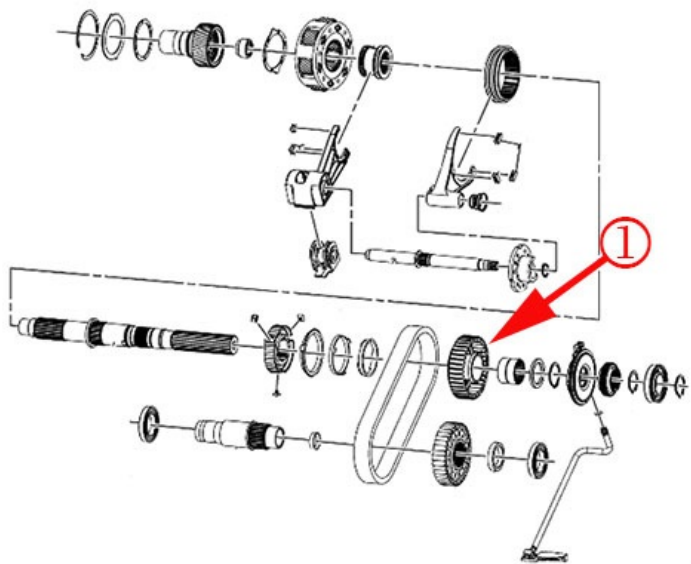
Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Silverado 4wd	2015 - 2017	All	All	All	All
GMC	Sierra 4wd	2015 - 2017	All	All	All	All
Involved Region or Country	North America					
Additional Options (RPO)	NQF NQG					
Condition	No power transmitted to the front axle in 4wd					
Cause	Transfer Case Front Output Shaft Drive Sprocket body ring has separated.					

For NQF equipped vehicles if the customer indicates that the transfer case was in 4wd with the 4wd indicator light on solid in the select switch but the front wheels were not assisting in vehicle movement verify the following.  
Shift the transfer case to 4wd and ensure that the 4wd led indicator is on solid. If the 4wd light in the switch is illuminated solid then all operations to achieve 4wd were completed successfully. This means that the front axle actuator is locked in the 4wd position and the transfer case actuator has achieved the 4wd position. If there is still no transfer of power then there is a mechanical link broken in the transfer case or front axle assembly. If the front propeller shaft can be rotated independently of the rear, then the disconnect is in the transfer case. Inspect item pictured below and ensure that the body ring that the synchronizer engages has not separated from the Transfer Case Front Output Shaft Drive Sprocket. If so then replace the transfer case front output drive shaft sprocket as needed. If the front propeller shaft cannot be rotated independently of the rear then the disconnect is in the front axle assembly.

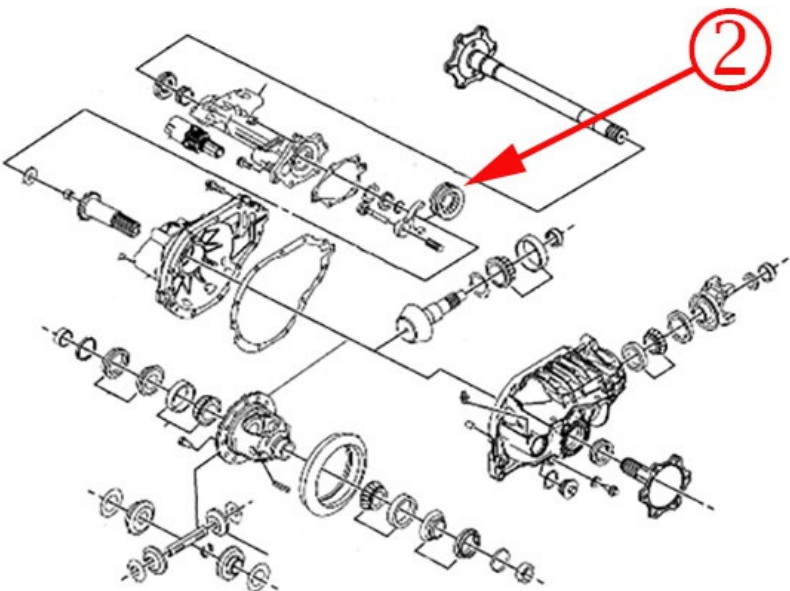
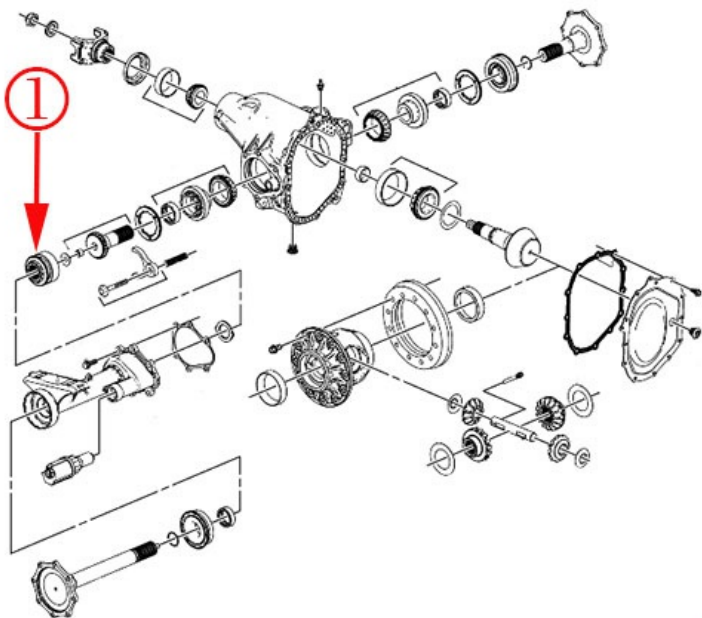
For NQG equipped vehicles if the customer indicates that the transfer case was in 4wd with the 4wd indicator light on solid in the IPC but the front wheels were not assisting in vehicle movement verify the following  
Shift the transfer case to 4wd and ensure that the 4wd indicator in the IPC is on solid. If the 4wd light in the IPC is illuminated solid then all operations to achieve 4wd were completed successfully. This means that the front axle actuator is locked in the 4wd position and the transfer case switch is indicating the 4wd position. If there is still no transfer of power then there is a mechanical link broken in the transfer case or front axle assembly. If the front propeller shaft can be rotated independently of the rear then the disconnect is in the transfer case. Inspect item pictured below and ensure that the body ring that the synchronizer engages has not separated from the Transfer Case Front Output Shaft Drive Sprocket. If so then replace the transfer case front output drive shaft sprocket as needed. If the front propeller shaft cannot be rotated independently of the rear then the disconnect is in the front axle assembly.



The above photo shows a gear that the body ring has separated from. This is a press fit and the ring should not separate from the gear. If the ring has separated from the gear, gear replacement is required. That gear is item 1 in the picture below.



For vehicles that have been isolated to the front axle see pictures below as to what could be 1 cause of no power transfer through the differential to the front wheels.



Warranty Information

Labor Operation	Description	Labor Time
8421162	Transfer Case Overhaul	Use Published Time

Version History

Version	1
Modified	